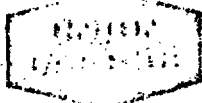


#80

17-m491

3055

NATIONAL BUREAU OF INVESTIGATION  
INTERNAL CORRESPONDENCE

May 17, 1983

Y/HG-0116

why

M. L. Jones, 9106, MS-5

Mercury Losses to East Fork Poplar Creek

Attached is a summary of measured mercury losses from the Y-12 Plant. From 1955 through 1962, the total soluble mercury measured in Poplar Creek was 234,486 pounds. Based on several samples, it was estimated that suspended mercury was equal to soluble mercury, hence, the total of 470,000 pounds.

In general, from 1963 to present, the maximum amount of soluble mercury listed is estimated by multiplying flow rate by laboratory detection limit for mercury. Currently, soluble mercury is less than 0.001 ppm and suspended is 0.002 to 0.003 ppm; thus, current loss rate is about <18 lb/year soluble mercury and from 36 to 54 lb/year suspended mercury measured during normal flow. In storm flow, the suspended mercury loss rate is greater, but insufficient data exists to quantify yearly estimated losses.

In recent years and prior to 1983 when special samples were collected, there is no data on suspended mercury because samples were filtered.

Data on the attached table was obtained from John Napier.

212 Butz

T. R. Butz, 9106, MS-5 (4-3647)

TRB:eh

Attachment

cc/att: G. E. Kamp, 9106, MS-5  
J. M. Napier, 9202, MS-1  
J. C. White, 9704-2, MS-19  
File - TRB - RC

Soluble vs. Not Soluble  
Lab People Say No.

APPROVED FOR PUBLIC RELEASE	
	4/13/84
Technical Information Office	Date

3055

from Y/H6-0116  
(5-17-83)

# MERCURY LOSSES TO EAST FORK POPLAR CREEK

1951  
52  
53  
54  
1955

no preserv?

920-6  
Mainst.  
Ran  
Stand.

YEAR	MEASURED BLDG. LOSS IN LBS.	SOLUBLE Hg IN LBS. POPLAR CREEK	COMMENTS
1955	--	30,680	
1956	--	30,974	
1957	98,834	71,080	
1958	53,417	66,069	
1959	11,032	19,029	
1960	1,732	6,094	
1961	--	6,216	
1962		4,344	
1963		932	Σ234,486 lb through 1962
1964		<550	DL <.03 ppm
1965		<1,450	DL <.03 ppm
1966		<910	DL <.05 ppm
1967		<910	DL <.05 ppm
1968		<91	DL <.005 ppm
1969		<91	DL <.005 ppm
1970		<91	DL <.005 ppm
1971		182	DL <.01 ppm
1972		<91	DL <.005 ppm
1973		<18	DL <.001 ppm
1974		<18	DL <.001 ppm
1975		<18	DL <.001 ppm
1976		<18	DL <.001 ppm
1977		<18	DL <.001 ppm
1978		<18	DL <.001 ppm
1979		<18	DL <.001 ppm
1980		<18	DL <.001 ppm
1981		<18	DL <.001 ppm
1982		<18	DL <.001 ppm

minitized  
scoops  
in to  
glass  
carbony  
filled one  
carb one  
w/le.

NEED

Pumpers  
out into  
collecting bottle.  
use proportioning pump.

John Schmitt  
Ralph Kahl  
Ron Gabb  
have  
all 3  
filters  
next  
to  
for 1973

1974 Jan.

these were filtered +  
Sol. Hg meas. only

1977 Jan. stopped filtering started measuring  
(NEDES permit) Total Hg